

1. (Amended) A device for testing a material that changes shape when at least one of an electric field and a magnetic field is applied, comprising:

A¹ a generator for generating at least one of the electric field and the magnetic field and applying the at least one of the electric field and the magnetic field to the material;

at least one thermal sensor for detecting a change in temperature of the material associated with the at least one of the electric field and the magnetic field; and

a measurement unit for measuring a change in shape of the material after the at least one of the electric field and the magnetic field is applied.

5. (Amended) The device according to claim 1, further comprising:

an imaging unit for obtaining an image of the material.

A² 6. (Amended) The device according to claim 1, further comprising:

a unit for varying at least one of the electric field and the magnetic field generated by the generator.

7. (Amended) The device according to claim 1, further comprising:

a unit for periodically varying at least one of the electric field and the magnetic field generated by the generator.

A³ 11. (Amended) The device according to claim 1, further comprising:

a detection unit for detecting a portion of a

X3
(cont'd)

heating of the material attributed to an electric current associated with the at least one of the electric field and the magnetic field.

16. (Amended) The device according to claim 1, further comprising:

an optical measurement unit for measuring a change in at least one of a shape and a length of the material.

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Please add the following new claims:

17. (New) The device according to claim 1, wherein the at least one thermal sensor includes a non-optical thermal sensor.

18. (New) The device according to claim 5, wherein the imaging unit includes at least one of a photographic unit and a camera unit.

19. (New) The device according to claim 7, wherein the at least one of the electric field and the magnetic field varies periodically as one of a sinusoidal change and a square-wave change.

20. (New) The device according to claim 9, wherein the arrangement for performing a temperature control of the substrate includes at least one of a climate chamber, a heating device, and a cooling device.

21. (New) The device according to claim 1, wherein the electric contacting includes at least one of a sputtered metal layer and a glued metal layer.

22. (New) A device for testing a material that changes shape when at least one of an electric field and a magnetic field is applied, comprising: